

Task-Flow: A Full-Stack MERN WebApp (Live Project)

Project-III (IT208PPC31) report submitted to
Guru Ghasidas Vishwavidyalaya
in partial fulfilment for the award of the degree of
Bachelor of Technology
in
Information Technology

by
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Under the supervision of
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April 3, 2025

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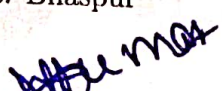


CERTIFICATE

This is to certify that the project report entitled “Task-Flow: A Full-Stack MERN WebApp (Live Project)” submitted by Inzamamul Haque (21036125), Raiyaan Md Afsar (21036141), and Meraj Alam (21036134) to Guru Ghasidas Vishwavidyalaya towards partial fulfilment of requirements for the award of degree of Bachelor of Technology in Information Technology is a record of bonafide work carried out by them under my supervision during B.Tech (8th sem).

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Abstract

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Degree for which submitted: **Bachelor of Technology**

Department: **Department of Information Technology**

Thesis title: **Task-Flow: A Full-Stack MERN WebApp (Live Project)**

Thesis supervisor: **Mr. Suhel Ahamed (Assistant Professor)**

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Task-Flow is a web-based application designed to address the operational challenges faced by small businesses in managing work, employees, and administrative roles. Built using the MERN stack comprising MongoDB, Express.js, React.js, and Node.js, Task-Flow integrates key functionalities like task assignment, employee management, role-based access control, and dashboard visualization into a unified platform.

The primary objective of Task-Flow is to simplify workflow management by providing a cost-effective and user-friendly tool tailored to the needs of small companies. The application enables administrators to assign tasks, track employee performance, and manage roles efficiently. It features an interactive dashboard for real-time insights, ensuring that managers and employees can focus on productivity rather than being bogged down by administrative inefficiencies.

This thesis explores the design, implementation, and testing of Task-Flow, highlighting its modular architecture and the seamless integration of front-end and back-end technologies. The project also addresses key challenges such as ensuring data security, optimizing performance, and creating an intuitive user interface. Task-Flow represents a scalable and adaptable solution, with potential for future enhancements like advanced analytics, mobile app integration, and third-party tool support. By bridging the gap between complex, expensive tools and the requirements of small businesses, Task-Flow aims to transform how work management is approached in the modern digital era.